Appln. No. 10/517,957

Amendment Dated July 9, 2009

Reply to the Office action of April 9, 2009

REMARKS

Claims 1 – 14 are pending in the application; claims 1 – 7 and 9 stand withdrawn from consideration and claims 8 and 10 – 14 stand rejected.

The Examiner's presumption that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made is correct.

Claims 8 and 10 – 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoechst (GB1603030) in view of US 3,959,475 to Bauer et. al. (Bauer). Applicants respectfully traverse.

By way of summary, the presently claimed invention relates to compounds of the general formula:

with R^1 to R^{10} , n and Y being variously defined in claim 8, for example. The utility of the compounds is clearly set out on page 1 of the application as filed. The compounds are useful in agriculture as insecticides, acaricides, molluscicides and/or nematicides.

Hoechst discloses compounds of formula (II)

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$$\begin{array}{c|c} R \\ M \\ \end{array}$$

wherein R, R¹-R³ and X are variously defined, which are useful as tranquilizers due to their ability to depress the central nervous system of mammals (page 7, lines 4 to 5). Accordingly, the utility of the compounds disclosed in Hoechst is completely different from the instant utility.

Reference is made to the USPTO Manual of Patent Examination Procedure ("MPEP"), and in particular section 2144.09:

A prima facie case of obviousness may be made when chemical compounds have very close structural similarities and similar utilities. "An obviousness rejection based on similarity in chemical structure and function entails the motivation of one skilled in the art to make a claimed compound, in the expectation that compounds similar in structure will have similar properties." [emphasis added]

Therefore, in order to make a case of prima facie obviousness, two factors need to be established: i) close structural similarity, and ii) similar utility. Factor ii) is manifestly not present when comparing the present invention with the disclosure of Hoechst; the utility of the present compounds is the killing of agriculturally harmful insects, molluscs, acarids and nematodes, while the utility disclosed in Hoechst is as pharmaceuticals for tranquilizing mammals.

Applicants respectfully submit that one of ordinary skill would never contemplate a publication relating to tranquilizers when attempting to develop an agricultural insecticide.

There simply is no teaching or suggestion in Hoechst that the compounds disclosed therein can be used as insecticides, acaricides, molluscicides and/or nematicides. There is no suggestion that the compounds can be used in agriculture. There is no suggestion that the compounds have any utility other than as pharmaceutical tranquilizers. 1

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In support of the rejection, the Office action cites In re Wilder for the proposition that: "When chemical compounds have "very close" structural similarities and similar utilities, without more a prima facie case may be made..."

In the present case, the utilities are totally different – thus, no prima facie case has been made over Hoechst

Turning to Bauer, the compounds disclosed therein are structurally very different from those of the present invention. Specific differences include:

- Ring heteroatom: Bauer requires oxygen, the present invention requires nitrogen, which is very different in terms of valency and basicity;
- ii) Ring heteroatom position: The compounds of Bauer and the compounds of the invention differ in the position of the heteroatom in the fused ring system; in the compounds of Bauer, this is in the 2- position, whereas in the compounds of the present invention, the heteroatom is in the 1position;
- iii) Heteroatom substitution: the compounds of Bauer are unsubstituted on the ring heteroatom, whereas a variety of substituents are tolerated on the ring heteroatom of the compounds of the present invention.

One of ordinary skill would have to make numerous changes to the compounds of Bauer in order to arrive at the compounds of the present invention. The person of ordinary skill would be aware that making any one of these changes would likely result in a loss of activity. The person of ordinary skill would simply not be able to predict that the compounds of the present invention would be activity because they differ in a number of important respects from those of Bauer.

Moreover, the person of ordinary skill would never realistically combine the disclosure of Hoechst with that of Bauer in order to prepare further insecticidal compounds. The disclosures of these documents relate to totally different technologies. The relevant person of ordinary skill in the art would be a chemist working in the field argrochemical research. He would have no reason to suppose that the compounds of Hoechst would have any insecticidally useful properties.

In fact, the person of ordinary skill, contemplating the teaching of Hoechst, would be taught away from the compounds of the present invention. The person of ordinary skill would have no

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reasonable expectation that the disclosure of Hoechst could be combined with that of Bauer as suggested by the Examiner – in doing so – compounds that are physiologically active in mammals could result because. The fact that the compounds of Hoechst are disclosed as psychoactive in mammals would motivate the skilled person to avoid such structures as potential insecticides.

In summary, the Examiner has not met the burden of proving a case of prima facie obviousness. because:

- The compounds of Hoechst have a completely different utility from those of the present invention:
- ii) The compounds of Bauer are structurally very remote from those of the present invention;
- iii) The skilled person would never contemplate combining the teaching of Bauer with that of Hoechst in order to arrive at the inventive compounds: and
- iv) The disclosure of Hoechst actually teaches away from the use of spiroindoline-3,4piperidines as insecticides.

Accordingly – in view of the above analysis it is submitted that the present invention is not prima facie obvious in view of the teachings of Hoechst in view of Bauer. Reconsideration and withdrawal of the § 103 rejection of claims 8 and 10 – 14 are respectfully requested.

In view of the foregoing remarks, Applicants submit that the claims 8 and 10-14 are in condition for allowance. Reconsideration and withdrawal of all rejections are respectfully requested, along with the issuance of a Notice of Allowance.

Respectfully submitted,

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